

## METHOD AND APPARATUS FOR TESSELLATION LIGHTING

### Abstract of the Invention

5           A method and apparatus for performing tessellation lighting operations for video graphics primitives in a video graphics system is presented. When the vertex parameters corresponding to the vertices of a video graphics primitive are received, a tessellation operation is performed such that a number of component primitives are generated. The vertex parameters corresponding to the vertices of the component primitives are then  
10   calculated utilizing the vertex parameters for the original video graphics primitive. Such calculation operations include determining a corresponding normal vector for each component primitive vertex. Each of the component primitives is then individually processed. Such processing may include calculating the lighting effects for each component primitive and performing additional processing operations that generate pixel  
15   fragments for the primitive. The resulting pixel fragments are blended with image data stored in a frame buffer, where the image data is used in generating a displayed image.